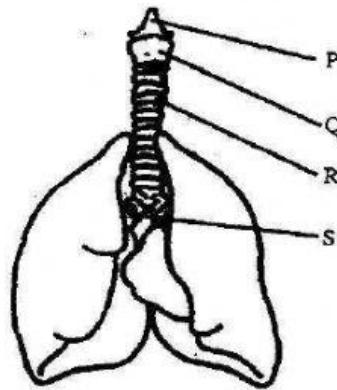


The diagram represents some of the structures found in the human breathing system.



1. What is the function of the part of the diagram labeled P?(1)

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2. Write the names of the parts of the diagram labeled:(3) Q.

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R. \_\_\_\_\_

S. \_\_\_\_\_

3. Blood flows through the lungs. Give two ways in which the blood that enters is different from the blood that leaves the lungs.(2)

i. \_\_\_\_\_

ii. \_\_\_\_\_

4. The table below shows the relative percentage of three gases in inhaled air and exhaled air. Complete the table: (2)

Gas	Inhaled Air	Exhaled Air
	21%	
Nitrogen		78%
	0.04%	

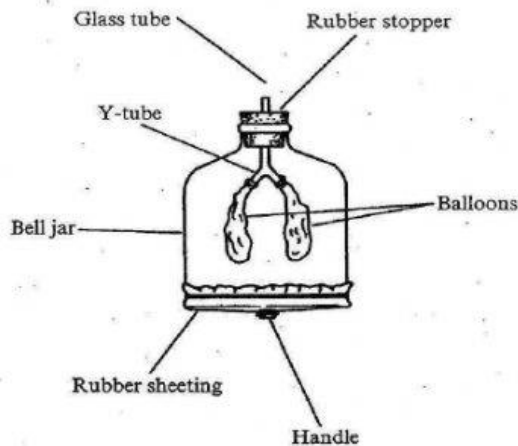
5. Name a chronic disease of the respiratory system and tell how it is caused? (2)

i. Disease: \_\_\_\_\_ ii. Caused: \_\_\_\_\_

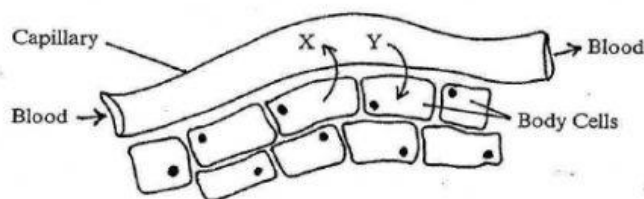
**Section**

**Two: Respiratory System Multiple Choice**

The diagram represents a model that illustrates the mechanics of breathing. Use the diagram to answer questions 1 and 2.



1. In the diagram, what does the bell jar represent?
  - a. The chest cavity
  - b. The lungs
  - c. The respiratory system
  - d. The rib cage
2. What should happen if you pull down on the rubber sheeting?
  - a. The balloons should deflate.
  - b. The balloons should inflate.
  - c. The sides of the bell jar should collapse.
  - d. The sides of the bell jar should swell outward.
3. The diagram shows the exchange of gases between some leg cells and blood in a capillary. What do letters X and Y represent?



- a. X is carbon dioxide and Y is oxygen
  - b. X is nitrogen and Y is carbon
  - c. X is oxygen and Y is nitrogen
  - d. X is oxygen and Y is carbon dioxide
4. Which organs of the body would you find alveoli surrounded by capillaries?
    - a. The ears
    - b. The intestine
    - c. The kidneys
    - d. The lungs

This table shows what happens to the air that we exhale. Use the information in the table to answer questions 5, 6 and 7.

Gas	Inhaled Air	Exhaled Air
Oxygen	21%	17%
Carbon dioxide	0.04%	4.0%
Water vapor	1.25%	5.9%
Nitrogen	78%	78%

5. What gas is removed from inhaled air?
  - a. Carbon dioxide      c. Nitrogen
  - b. Oxygen      d. Water vapor
6. What gases are added to inhale air in the lungs, and then exhaled?
  - a. Carbon dioxide      c. Nitrogen, carbon dioxide and oxygen
  - b. Carbon dioxide and water vapor      d. Water vapor, oxygen and nitrogen
7. What is the difference between the percentage of oxygen in inhaled and exhaled air?
  - a. 6.1%      c. 79.3%
  - b. 35.5%      d. 85.4%

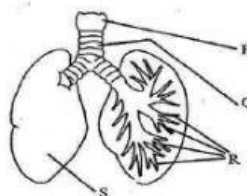
8. This word equation shows the process of cellular respiration.



What do P and Q represents?

- a. P is starch and Q is sucrose sugar
  - b. P is water and Q is carbon dioxide
  - c. P is nitrogen and Q is amino acids
  - d. P is glycogen and Q is uric acid.
9. The diagram on the right represents the human breathing system. Which line is pointing to the part of the system that contains the vocal cords?

- a. Line P
  - b. Line Q
  - c. Line R
  - d. Line S



10. In the diagram at the right, what material lines the part labeled Q and causes it to be stiff and rigid?
  - a. bone      c. ligament
  - b. cartilage      d. tendon

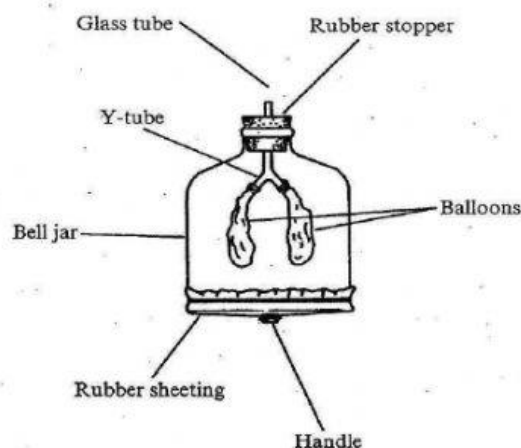
11. This table shows the difference between inhaled and exhaled air.

Gas	Inhaled Air	Exhaled Air
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Oxygen	21%	17%
Carbon dioxide	0.04%	4.0%
Water vapor	1.25%	5.9%
Nitrogen	78%	78%

What is the percentage difference between inhaled and exhaled air of the gas that is not involved in cellular respiration?

- a. 0.0%   c. 4.96%
  - b. 3.96%   d. 6.1%
12. What takes place when the diaphragm muscle contracts?
- a. Air goes in the lungs   d. Food moves from the stomach to the
  - b. The arm is bent at the elbow   small intestine
  - c. The pupil of the eye gets smaller
13. Which flow diagram correctly shows the direction of flow of carbon dioxide as it passes out of the respiratory system in the external environment?
- a. alveoli → trachea → bronchioles → bronchi → pharynx → nasal cavity
  - b. alveoli → bronchi → pharynx → bronchioles → trachea → nasal cavity
  - c. alveoli → pharynx → trachea → bronchioles → bronchi → nasal cavity
  - d. alveoli → bronchioles → bronchi → trachea → pharynx → nasal cavity
14. The diagram below represents a model that illustrates the mechanics of breathing.



What could you do to this model to illustrate inhaling?

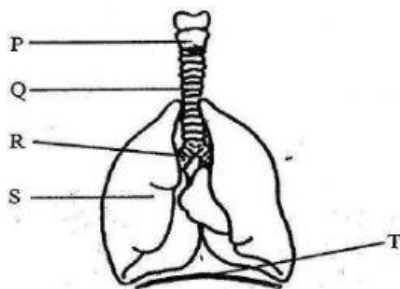
- a. Blow into the glass tube
  - b. Press against and squeeze the bell jar
  - c. Pull down on the rubber sheeting
  - d. Push up on the rubber sheeting
15. Which row in the table gives the correct name and location of the structure shown on the right?

	Name of Structures	Location
A	Alveoli	In the lungs
B	Lacteals	In the lymph glands
C	Semi-circular canals	In the air
D	Villi	In the small intestine

16. Which one of the following contains the vocal cord

- a. The epiglottis
- b. The esophagus
- c. The larynx
- d. The pharynx

Question 17, 18 and 19 refer to the diagram below.



17. To what system of the body do structures P, Q, R and S belong?

- a. The circulatory system
- b. The immune system
- c. The lymphatic system
- d. The respiratory system

18. What is the name of the part labeled Q in the diagram?

- a. Aorta
- b. Esophagus
- c. Trachea
- d. Urethra

## The Excretory System

**What is the function of the excretory system?**

- Excretory system regulates the chemical composition of body fluids by removing metabolic wastes and